

AMENDMENTS TO THE CLAIMS:

Please amend the claims as indicated below. This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A transmission method for transmitting data related to a first device ~~connected to a network through a network connection~~ comprising:

storing connection information in a predetermined table, and

transmitting the stored connection information over the network to ~~another a~~ second device as command data having in a predetermined format ~~via the connection~~; and

wherein the stored connection information has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the stored connection information contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a destination descriptor representing a list of receivers, and a transformation descriptor representing a list of signal conversions.

2. (Currently Amended) The transmission method according to claim 1, wherein the connection information held in the table includes:

information related to a connection between an input unit ~~and~~ or an output unit of the first device and an internal function processing unit of the first device; ~~and an internal function processing unit held by the device and~~

information about which formats the first device can input or output. ~~related to a format and input or output by the device.~~

3. (Currently Amended) The transmission method according to claim 2, wherein the information held in the table ~~and related to the connection between the input unit or the output unit and the function processing unit~~ includes information related to transmitting the said data over multiple connections ~~by a plurality of connections~~ at once.

4. (Currently Amended) The transmission method according to claim 2, wherein the connection information held in the table further includes information related to converting an input format into an output format by the first device, ~~a function of converting a format for inputting and outputting into another format.~~

5. (Currently Amended) The transmission method according to claim 2, wherein the information in the table indicates input or output units within the first device that are not connected to the network, ~~an input unit or an output unit indicated by information held in the table include units excluding; an input unit or an output unit connected to the bus line.~~

6. (Currently Amended) The transmission method according to claim 2, wherein information related to a present connection state in the first device is transmitted to ~~another~~ the second device by transmission of the command data ~~of~~ in a predetermined format.

7. (Currently Amended) The transmission method according to claim 6, wherein, when a present connection state of the first device is changed ~~changes~~, information related to the change is transmitted to the second device, ~~in the present connection state is further transmitted.~~

8. (Currently Amended) A transmission method for transmitting data related to a first device ~~connected to a network~~ to a second device through a network connection, comprising:

the second device designating a unit within the first device for input;

the second device transmitting a command in a predetermined format that indicates which unit of the first device the second device has designated;

~~data for designating an input of an output unit or an internal function processing unit held by the first device is transmitted from the second device by a command of a predetermined format;~~

the first device transmitting data indicating the status of connections within the first device, including output units or internal function processing units corresponding to the designated input unit;

~~such that data related to a status of connection between two units of the corresponding input unit, output unit, and internal function processing unit of the first device is transmitted to the second device;~~

wherein the data has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the data contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a destination descriptor representing a list of receivers, and a transformation descriptor representing a list of signal conversions.

9. (Currently Amended) The transmission method according to claim 8, wherein data for designating the input unit ~~held by~~ within the first device is transmitted to the second device.

10. (Currently Amended) A transmission method for transmitting data related to a first device connected ~~to a network~~ to a second device through a network connection, comprising:

designating a unit within the first device for input by the second device;

the second device transmitting to the first device a command in a predetermined format that indicates which unit of the first device the second device has designated;

~~data for designating an output unit or an internal function processing unit held by the first device is transmitted from the second device by a command of a predetermined format,~~

the first device transmitting data to the second device indicating a signal source corresponding to the designated unit within the first device;

~~such that data for specifying a signal source of the data transmitted by the corresponding connection is transmitted to the second device,~~

wherein the data has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the data contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a destination descriptor representing a list of receivers, and a transformation descriptor representing a list of signal conversions.

11. (Currently Amended) The transmission method according to claim 10, wherein when ~~a plurality of~~ multiple signal sources exist, data related to multiple ~~the plurality of~~ signal sources is transmitted.

12. (Currently Amended) The transmission method according to claim 10, wherein data representing that ~~a plurality of~~ multiple signal sources exist is transmitted to the second device.

13. (Currently Amended) The transmission method according to claim 8, wherein similar data structures are used for both:

setting a connection between an input or output unit within the first device and a function processing unit within the first device; and

designating the input unit or output unit and function processing unit.

~~data for designating the input unit or the output unit and the function processing unit has a data structure equal to that of data used when a setting related to a connection between the input unit or the output unit and the function processing unit is performed.~~

14. (Currently Amended) A transmission method for transmitting data related to a ~~predetermined~~ first device ~~connected to a network to another~~ a second device through a network connection, comprising:

transmitting from the first device data related to an output state of a video image from a specific output unit of the first device, ~~predetermined device is output from the predetermined device,~~

wherein the data has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the data contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a destination descriptor representing a list of receivers, and a transformation descriptor representing a list of signal conversions.

15. (Currently Amended) ~~The transmission method according to claim 14, wherein to the data related to the output state of the video image,~~ a flag representing that a specific video image is superposed on the video image is added to the data related to the output state of the video image.

16. (Currently Amended) A The transmission method according to claim 15, wherein the specific video image represented by the flag is a video image of an on-screen display.

17. (Currently Amended) The transmission method according to claim 14, wherein a processing state of the video image is represented by the specific field of data related to ~~an~~ the output state of the video image.

18. (Currently Amended) The transmission method according to claim 17, wherein a the processing state of the video image is represented by using a flag.

19. (Currently Amended) The transmission method according to claim 17, wherein a the processing state is ~~represented by data in the specific field is data representing a~~ the state that where predetermined data is being extracted from multiplexed video data.

20. (Currently Amended) The transmission method according to claim 17, wherein a the processing state is ~~represented by data in the specific field is data representing a~~ the state where a video image is superposed on an on-screen data

~~display. of an on-screen display for displaying data on which a video image is superposed.~~

21. (Currently Amended) The transmission according to claim 17, wherein a the processing state ~~represented by data in the specific field is data representing~~ is a the state ~~that a~~ where the signal format of the video data is being converted.

22. (Currently Amended) The transmission method according to claim 17, wherein a the processing state ~~represented by data in a specific field is data representing~~ is a the state that where a special process is being performed to on a video image.

23. (Currently Amended) The transmission method according to claim 22, wherein the state ~~that a special process represented by data in a specific field is performed~~ is a the state that where video images are mixed.

24. (Currently Amended) The transmission method according to claim 17, wherein a the processing state is the state where the output video image is set to the video image from the signal source. ~~represented by data in the specific field is data representing a state that the same video image as that of a signal source is set.~~

25. (Currently Amended) A first transmission device which can be connected to another a second device through a network ~~connection~~, comprising

storage means for storing connection information in a table; ~~holding connection information which are connectable in the device at once as a predetermined table;~~ and

transmission control means for transmitting part or all of the connection information stored by the storage means ~~to the connection on the basis of~~ when a command of a predetermined format is received through the network ~~connection~~,

wherein the connection information has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the connection information contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a destination descriptor representing a list of receivers, and a transformation descriptor representing a list of signal conversions.

26. (Currently Amended) The transmission device according to claim 25, wherein the connection information held in the storage means includes:

information related to a connection between an input unit or an output unit within the first device and an internal function processing unit within the first device; and held ~~by the device, and~~

information about which formats the first device can input or output. ~~related to a format and input or output by the device.~~

27. (Currently Amended) The transmission device according to claim 26, wherein information ~~related to a connection between an input unit or an output unit and a function processing unit~~ held by the storage means and includes information related to transmitting the said data ~~by a plurality of~~ over multiple connections at once.

28. (Currently Amended) The transmission device according to claim 26, wherein connection information held in the storage means further include information related to converting an input format into an output format by the first device. ~~a function of converting the format for inputting and outputting into another format.~~

29. (Currently Amended) The transmission device according to claim 26, wherein the information in the storage means indicates input or output units within the first

~~device that are not connected to the network. an input unit or an output unit represented by information held in the storage means includes a unit excluding an input unit or an output unit connected to the bus line.~~

30. (Currently Amended) The transmission device according to claim 26, wherein the transmission control means transmits information related to a present connection state in the first device to ~~another~~ the second device by transmission of a command ~~of~~ in a predetermined format.

31. (Currently Amended) The transmission device according to claim 30, wherein when a present connection state of the first device changes ~~is changed~~; the information transmitted by the transmission control means includes information related to the change in the present connection state of the first device.

32. (Currently Amended) A first transmission device which can be connected to ~~another~~ a second device through a network connection, comprising:

transmission control means for transmitting connection data for a designated first device input, output, or internal function unit, ~~when data for designating an input of an output unit held by the device or an internal function processing unit is received through the connection, transmitting data related to a status of connection between two units of the corresponding input unit, output unit, and internal function processing unit;~~

wherein the connection data corresponds to the designated input or unit, and does not include connection data for every other input or internal function unit within the first device;

wherein the data has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the data contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a destination descriptor representing a list of receivers, and a transformation descriptor representing a list of signal conversions.

33. (Currently Amended) The transmission device according to claim 32, wherein the transmission control means transmits data for designating an input unit ~~held by~~ within the first device to the connection.

34. (Currently Amended) A first transmission device which can be connected to ~~another~~ a second device through a network connection, comprising:

receiving means for receiving data which specifies a signal source for an input to an output unit within the first device, or an input to an internal function processing unit within the first device;

transmission control means for, ~~when data for specifying a signal source of an input of an output unit or an internal function processing unit held by the device is received through the connection,~~ transmitting the data for specifying the signal source; ~~to the connection,~~

wherein the data has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the data contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a destination descriptor representing a list of receivers and a transformation descriptor representing a list of signal conversions.

35. (Currently Amended) The transmission device according to claim 34, wherein when ~~a plurality of~~ multiple signal sources exist, the transmission control means transmit data related to ~~the plurality of~~ multiple signal sources.

36. (Currently Amended) The transmission device according to claim 34, wherein when ~~a plurality of~~ multiple signal sources exist, the transmission control means transmits data representing that there are multiple signal sources. ~~the number of signal sources is plural.~~

37. (Currently Amended) A first transmission device adapted to be connected to another a second device through a network ~~connection~~, comprising:

an output unit; and

transmission control means for transmitting data related to an output state of video data from ~~an~~ the output unit ~~held by the device to the connection,~~

wherein the data has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the data contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a destination descriptor representing a list of receivers, and a transformation descriptor representing a list of signal conversions.

38. (Currently Amended) The transmission device according to claim 37, wherein the transmission control means adds a flag representing that a specific video data is superposed on a the video data.

39. (Currently Amended) The transmission device according to claim 38, wherein the specific video data represented by a the flag added by the transmission control means is video data of an on-screen display.

40. (Currently Amended) The transmission device according to claim 37, wherein the transmission control means arranges data representing a processing state of a video image in a specific field of data related to ~~an~~ the output state of a the video image.

41. (Currently Amended) The transmission device according to claim 40, wherein the data ~~in the specific field~~ arranged by the transmission control means is data representing a the state ~~that~~ where predetermined data is being extracted from multiplexed video data.

42. (Currently Amended) The transmission device according to claim 40, wherein the data ~~in the specific field~~ arranged by the transmission control means is data representing the state where of a video image is superposed on an on-screen data display. ~~an on-screen display for displaying a superposed video image.~~

43. (Currently Amended) The transmission device according to claim 40, wherein the data ~~in the specific field~~ arranged by the transmission control means is data representing a the state ~~that a~~ where the signal format of the video data is being converted.

44. (Currently Amended) The transmission device according to claim 40, wherein the data ~~in the specific field~~ arranged by the transmission control means is data representing a the state ~~that~~ where a special process is being performed ~~to~~ on the video image.

45. (Currently Amended) The transmission device according to claim 44, wherein the process is a process ~~state that the special process represented by the data in the specific field arranged by the transmission control means is performed is a state that~~ where video images are mixed.

46. (Currently Amended) The transmission device according to claim 40, wherein the data ~~in the specific field~~ arranged by the transmission control means is data representing that a the state where the output of the video image is the same as the video image of the signal source. ~~of the output video image is just equal to that of the video image of the signal source.~~

47. (Currently Amended) A transmission system in which a first device and a second device are connected to each other through a network ~~connection~~, comprising:

storage means for storing connection information of the first device in a predetermined table; and

transmission control means for transmitting part or all of the connection information ~~stored by the storage means~~ as a command of in a predetermined format ~~which is received through the connection~~; and

connection determination means for determining the connection information in the first device on the basis of transmitted data; ~~data transmitted to the connection~~,

wherein the connection information has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the connection information contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a

destination descriptor representing a list of receivers, and a transformation descriptor representing a list of signal conversions.

48. (Currently Amended) The transmission system according to claim 47, wherein connection information held in the storage means of the first device includes:
information related to a connection between an input unit or an output unit of the first device and an internal function processing unit of the first device ~~held by the first device~~; and

information about which formats the first device can input or output ~~related to a format and input or output by the first device~~, such that the second device can determine the connection information of the first device.

49. (Currently Amended) The transmission system according to claim 48, wherein the information held in the storage means of the first device ~~and related to the connection between the input unit or the output unit and the function processing unit~~ includes information related to transmitting the said data ~~by a plurality of~~ over multiple connections at once, such that ~~the second device~~ devices receiving the information can determine the connection information of the first device.

50. (Currently Amended) The transmission system according to claim 48, wherein the connection information held in the storage means of the first device further includes information related to converting an input format into an output format by the first device ~~a function of converting a format for inputting and outputting into another format~~, such that the second device can determine the connection information of the first device.

51. (Currently Amended) The transmission system according claim 48, wherein the connection information held in the storage means indicates input or output units within the first device that are not connected to the network. ~~an input unit or an output unit represented by the connection information held in the storage means of the first device includes a unit for excluding an input unit or an output unit connected to the network connection,~~ such that the second device determines the connection information.

52. (Currently Amended) The transmission system according to claim 48, wherein the transmission control means of the first device transmits information related to a present connection state in the first device to the second device by transmitting command data of in a predetermined format.

53. (Currently Amended) The transmission system according to claim 52, wherein when the present connection state in the first device changes, ~~is changed,~~ information transmitted by the transmission control means of the first device includes information related to the change in the present connection state, such that the second device can determine the change in the present connection state.

54. (Currently Amended) A transmission system in which a first device and a second device are connected to each other through a network ~~connection,~~ comprising:

transmission control means for transmitting connection data for a designated device input or internal function unit; and ~~when data for designating an input of an output unit held by the device or an internal function processing unit is received through the connection, transmitting data related to a status of connection between two units of the corresponding input unit, output unit, and internal function processing unit,~~

connection determination means for determining the connection information in the first device ~~on the basis of data transmitted to the connection,~~

wherein the connection data corresponds to the designated input or unit within the first device, and does not include connection data for every other device input or internal function unit within the first device;

wherein the connection information has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the connection information contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a destination descriptor representing a list of receivers, and a transformation descriptor representing a list of signal conversions.

55. (Currently Amended) The transmission system according to claim 54, wherein the transmission control means of the first device transmits data for designating an input unit ~~held by~~ within the first device ~~to the network connection,~~ and the connection determination means of the second device determines the state of the connection in the first device. ~~that the data is transmitted to the connection.~~

56. (Currently Amended) A transmission system in which a first device and a second device are connected to each other through a network connection, comprising:
receiving means for receiving data which specifies a signal source of an input to an output unit within the first device, or an input to an internal function processing unit within the first device;

transmission control means for, ~~when data for specifying a signal source of an input of an output unit held by the first device or an internal function processing unit is~~

~~received through the connection, transmitting the data for specifying the signal source to the connection; and~~

connection determination means for specifying the signal source of the output unit within the first device ~~on the basis of data transmitted from the first device,~~

wherein the data has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the data contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a destination descriptor representing a list of receivers, and a transformation descriptor representing a list of signal conversions.

57. (Currently Amended) The transmission system according to claim 56, wherein when ~~a plurality of~~ multiple signal sources exist, the transmission control means of the first device transmits data related to the multiple ~~plurality of~~ signal sources, and the connection determination means of the second device determines the multiple ~~the plurality of~~ signal sources.

58. (Currently Amended) The transmission system according to claim 56, wherein when ~~a plurality of~~ multiple signal sources exist, the transmission control means of the first device transmits data representing that there are multiple signal sources, ~~the number of signal sources is plural,~~ and the connection determination means of the second device determines that there are multiple signal sources. ~~the number of signal sources is plural.~~

59. (Currently Amended) A transmission system in which a first device and a second device are connected to each other through a network ~~connection,~~ comprising:

transmission control means for transmitting data related to an output state of video data from an output unit ~~held by~~ within the first device ~~to the connection~~; and

state determination means for determining the output state on the basis of data transmitted from the first device,

wherein the data has a hierarchical structure, including information about connections between internal units within the first device, and

wherein the data contains a unit identifier descriptor representing all data, a source descriptor representing a list of transmission sources, a destination descriptor representing a list of receivers, and a transformation descriptor representing a list of signal conversions.

60. (Currently Amended) The transmission system according claim 59, wherein the transmission control means of the first device adds a flag representing that a specific video data is superposed on ~~[[a]]~~ video data, and

the state determination means of the second device determines on the basis of the flag that the specific video data is superposed on the video data.

61. (Currently Amended) The transmission system according to claim 60, wherein the specific video data represented by the flag ~~added by the transmission control means of the first device~~ is video data of an on-screen display, and the state determination means of the second device determines that the specific video data is the video data of the on-screen display on the basis of the flag.

62. (Currently Amended) The transmission system according to claim 59, wherein the transmission control means of the first device arranges data representing a processing state of a video image in a specific field of data related to an the output state

of a video image, and the state determination means of the second device determines the processing state of the video image.

63. (Currently Amended) The transmission system according to claim 62, wherein the data in ~~the specific field~~ arranged by the transmission control means of the first device is data representing a the state that where predetermined data is extracted from multiplexed video data, and the state determination means of the second device determines that the first device is in a state where it is extracting predetermined data from multiplexed video data. ~~a state that the predetermined data is extracted from the multiplexed video data.~~

64. (Currently Amended) The transmission system according to claim 62, wherein the data in ~~the specific field~~ arranged by the transmission control means of the first device is data representing a the state of an on-screen display for displaying a superposed video image, and the state determination means of the second device determines the state of the on-screen display.

65. (Currently Amended) The transmission system according to claim 62, wherein, the data in ~~the specific field~~ arranged by the transmission control means of the first device is data representing a the state that a where the signal format of the video data is being converted, and the state determination means of the second device determines that the first device is in a state where it is converting the signal format of the video data. ~~a state that the signal format of the video data is converted.~~

66. (Currently Amended) The transmission system according to claim 62, wherein the data in ~~the specific field~~ arranged by the transmission control means of the first device is data representing a the state that where a special process is being

performed to on a video image, and the state determination means of the second device determines that the first device is in a state where it is performing a special process on the video image. ~~the state that the special process is performed to the video image.~~

67. (Currently Amended) The transmission system according to claim 66, wherein the special process is a process where ~~the state that a special process~~ represented by the data in the specific field arranged by the transmission control means of the first device is a state that video images are mixed, and the state determination means of the second device determines ~~the state that~~ the first device is in the state where the video images are being mixed.

68. (Currently Amended) The transmission system according to claim 62, wherein the data in ~~the specific field~~ arranged by the transmission control means of the first device is data representing that a the state where the output of the video image is the same as the video image of the signal source of ~~the output video image is just equal to that of a video image of a signal source,~~ and the state determination means of the second device determines that the output of the video image from the first device is the same as the video image of the signal source. ~~the output video image is just equal to the video image of the signal source.~~